AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please rewrite lines 14-20 on page 1 and lines 1-6 on page 2 as follows:

Even with the advent of on-line research, it has been observed that many consumers still limit their use of the Internet for product research and visit "brick and mortar" stores to make their product purchases. An important factor that consumers consider in deciding whether to act on this product research and purchase a particular product is the availability of an item for sale at a brick and mortar location near them. The consumers who research online and then buy off-line represent upwards of $1 trillion in purchasing power and are more likely to buy in stores, ~~for~~ which ~~they may know the items are actually~~ are likely to have the item in stock. Given that consumers can actually develop a focused, well-informed product preference before ever visiting a store, if a retailer's brick and mortar store ~~does not actually have~~ is unlikely to have an advertised product in stock, a consumer would probably not choose to go to that particular store to purchase the desired product.

Please rewrite lines 15-21 on page 2 and lines 1-6 on page 3 as follows:

Currently, retailers utilize batch processing of sales data to forecast their need to replenish product inventories. Retailers may have multiple brick and mortar stores that each may have multiple cash registers. At end of the day, the sales data from all cash registers of a particular store are transferred to an

inventory computer that compiles and stores all the data. As such, when a purchase is made early in the morning, a retailer's corporate inventory server may not obtain the sales data for that purchase until much after the close of business. Although, some retailers are slowly migrating to systems where individual stores are uploading sales data soon after a purchase transaction is conducted, neither of these types of inventory processing systems provide product availability information to consumers, much less on an industry-wide basis.

In addition, customers will likely choose to visit the retail store some time after researching the product on line. During this time period, other customers will arrive randomly at the store and some may purchase the same item, thus reducing the retailer's inventory. A customer who is provided the current real-time availability by the retailer has no means of forecasting the likelihood that the desired product will be purchased by another customer during this time period.

Finally, retail inventory records are often highly inaccurate. According to some studies only a third of the retail store inventory data records are actually correct. Theft, damage, and misplaced items create "unreported demands" that reduce the retailer's inventory below what is indicated by the inventory records. Potential customers have no information regarding this unreported demand and no way to account for it in their decision making.

Please rewrite lines 1 - 13 on page 4 as follows.

SUMMARY OF THE INVENTION

The present invention pertains to a method of and apparatus for determining item availability, where availability is the likelihood that the desired item will be in stock when the customer chooses to purchase it. In one embodiment, the method may include calculating a first variance for a reported sales rate of an item and calculating a second variance for an unreported sales rate of the item. The method may also include generating a first probability distribution for reported sales, during a delay time, of the item and generating a second probability distribution for unreported sales of the item based on an update time of a ready to sell parameter. The method may also include performing a convolution of the first and second probability distributions to obtain a probability of an availability of the item at an expected time of transaction.

Please rewrite lines 3 -13 on page 15 as follows.

Figure 2 illustrates one embodiment of client-server interaction when providing indication of in-stock probability. Data center server 250 and provider server 240 may be servers 150 and 140 of Figure 1, respectively. In some embodiments, communication between data center server 250 and client 220 can take place via connection 227. In one embodiment, client 220 may be operated by a consumer that seeks information regarding a particular product. Client 220 may establish a network connection 225 for network communication

with server 240 to view web pages served by server 240. As discussed above, server 240 may be operated by a portal or a content provider such as a manufacturer or retailer of a product that provides information about a product. Browser 221 of client 220 retrieves information from a requested page on server 240, interprets the data and formatting commands, and displays text and special accessory files, such as images, to the user of client 220. In some embodiments, Server 240 may submit the data 245 to data center server 250, for example, in the manner of a form post over HTTP.

Please rewrite lines 7 -14 on page 23 as follows.

The quantity parameter ~~479~~ 470 is the number of units of the product desired by the customer. A value for quantity parameter 470 may be derived from a user input or, alternatively, may be an assumed default value such as "1." The ready to sell parameter 460 is the number of units of inventory for a particular product (e.g., a PID or SKU) that are ready to sell in a particular store. The ready to sell parameter 460 may be based on the most recently reported inventory information from a retailer. For example, a retailer's inventory information may be updated on a daily basis.

Please rewrite lines 13 - 21 on page 24 and lines 1 -2 on page 25 as follows.

Figure 7 illustrates an alternative embodiment of a method of determining the in-stock availability of an item. In one embodiment, the retailer update time

705 may be used in calculating delay time 727. Retailer update time 705 reflects the last time that the retailer updated its inventory data and, therefore, may add to the uncertainty of sales during the delay time period. The retailer update time 705 may be presented as an absolute time or relative to the current time of the in-stock availability determination. The delay time 727 is then calculated, step 720, as the difference between the retailer update time and the shop time. Shop time 710 is the time when the shopping is likely to take place. For example, with the time increment given in days, if the shop time is one day after the current time and the retailer update time is 20 days prior to the current time, then and the delay time is calculated to be 21 days.

Please rewrite lines 12 - 17 on page 25.

A variance may then be calculated of the adjusted sales rate, step 730, based on experience level 735 for delay time 727. Experience level 735 is similar to experience level 435 discussed above in relation to Figure 4. Unreported sales fraction 734 may also be used to refine the simulations in step 750. A variance may be calculated for both reported sales 738 and unreported sales 739, step 730.

Please rewrite lines 13 -22 on page 25 and lines 1 -10 on page 26 as follows.

Based on the variances calculated in step 730, a probability distribution may be calculated for both reported and unreported sales during the delay time,

step 740. The probability distribution reflects all possible values of a retailer's sales with an indication of their probabilities. A convolution 750 of both the reported probability distribution 748 and unreported probability ~~distributions~~ distribution 749 may be performed to simulation the expectation of shopping outcomes in order to present an in-stock probability 780 to the consumer based on the parameters that were used. Convolution 750 combines the probability distribution for the number of units sold during delay time 727 with the probability distribution for the unreported sales fraction 734 for the particular retailer since its ready to sell 760 data was last updated. In some embodiments a quantity parameter 770, which may the number of units desired by the consumer, could also be used. The unreported sales probability distribution may be based, for example, on the historical accuracy of the retailer's data, along with the retailer's estimated rates of shrinkage and loss rate for a particular class of merchandise. The output of convolution 750 is a single probability distribution that combines both of these effects.

Please rewrite lines 19 - 21 on page 28 and lines 1 -3 on page 29 as follows.

Probability calculation engine 540 calculates a probability distribution for sales for the period between the current time and the shop time. Probability calculation engine 540 may also perform a simulation on the probability distribution using the ready to sell parameter 541, sales rate 542, and a quantity parameter received from customer query 594. The probability analysis may be

refined with the use of additional data. In some embodiments, the analysis may be used in conjunction with the additional data to calculate In-stock results 570 and an updated sales rate 543.

Please rewrite lines 10 - 16 on page 35 as follows.

The in-stock probability ~~526~~ 546 may then be presented ~~to~~ using customer interface 590 via customer interface screen ~~529~~ 592. As previously mentioned, in-stock probability ~~526~~ 546 may be presented ~~to~~ using customer interface 590 in various ways, for examples, as a percentage, as an absolute indicator (e.g., in-stock, out-of-stock, call store), and a confidence descriptor (e.g., high, medium, and low). Moreover, various customer ~~interfaces 529~~ interface screens 592 may be used to present in-stock probability ~~526 to~~ 546 using customer interface 590, for examples, visual and audio.

Please rewrite lines 17 - 22 on page 35 and lines 1 - 4 on page 36 as follows:

An example of in-stock probability ~~526~~ 546 calculation for a particular store and product is presented based on the following parameters. Assume DayParts=3; ExperienceLevel=LOW; ShopTime=4; OnHandUpdate=3; AdjProfile(Function)= 0.8, 1, 1, 1.1; UnreportedFraction=0.1; ReadytoSell=3; HistSales=10; and ObsTime=50. Then,

DelayTime(Store) = ShopTime + OnHandUpdate = 4 + 3 = 7

Time1 = INT(OnHandUpDate/DayParts) = INT(3/3) = 1

Time2 = INT(DelayTime/DayParts) = INT(7/3) = 2

FcstProfile(t) = (SUM OF AdjProfile(T) FOR T = t – Time1 TO t + Time2) / (1 + Time1 + Time2) = (0.8 + 1 + 1 + 1.1)/(1 + 2 + 1) = 0.975